

A new species of *Zebina* (Gastropoda: Rissoiidae: Rissoininae) from Yucatán (Mexico)

E. ROLÁN

Cánovas del Castillo 22, 36202 Vigo, Spain

KEYWORDS. Rissoininae, *Zebina*, new species, Yucatan, Mexico.

ABSTRACT. *Zebina unamae* n. sp. is described. The species was found in Yucatan, Mexico, Caribbean Sea. It is compared with related species.

INTRODUCTION

The subfamily Rissoininae is represented by numerous species in the Caribbean. They have been treated in general books, such as CLENCH & TURNER (1950), WARMKE & ABBOTT (1961), ABBOTT (1974), VOKES & VOKES (1983), LEAL (1991), DÍAZ MERLANO & PUYANA HEGEDUS (1994), and in revisions such as that of DESJARDIN (1949), or in comparison with the species of other areas, as in SLEURS (1989, 1993). The nearby fauna of Brasil is mentioned in SOUZA LOPEZ *et al.* (1966) and in RIOS (1985).

Numerous species have already been described in this subfamily. Nevertheless, some new ones have been recently added (see DE JONG & COOMANS, 1988; FABER, 1990).

In 1994 the author was in Mexico, invited to participate in the "Primera Reunión de Vinculación Académica sobre Tópicos Malacológicos". Some sediment samples were collected snorkeling in front of the Puerto Morelos Station of the Institute for Marine Sciences and Limnology of the National Autonomous University of Mexico (UNAM). Two shells from this sediment were sufficiently different from any known Caribbean species to be considered as new to science, and are the subject of the present work.

Genus *Zebina* H. & A. Adams, 1854

Zebina unamae n. sp.
(Figs. 1-4)

Type material.

Holotype (Fig. 1), 1.54 x 0.94 mm, deposited in the Museo Nacional de Ciencias Naturales of Madrid, (n° 15.05/31010), and one paratype (Fig. 2), 1.87 x 0.91 mm, in the collection of the author.

Type locality.

Puerto Morelos, Estación of the UNAM, 15 km west of Cancún, Quintana Roo, Yucatán, Mexico.

Etymology.

The specific name is dedicated to the UNAM, the institution which invited us to a scientific meeting and from which Station we collected the sediment samples in which the shells were found.

Description.

Shell (Figs. 1-2) oval-elongate with rissoiniform features, apex acute, with the last whorl representing more than half of the total shell length.

Protoconch (Fig. 3) conical and smooth, of non-planktotrophic larval type, with 1½ whorls.

Teleoconch with about three to four whorls increasing rapidly in size. The spiral sculpture is the most important, consisting of very prominent cords. These cords number five on the first whorl of the teleoconch, decreasing to three on the second whorl; an additional cord appears on the third whorl from the suture below; on the last whorl there are 8-10 prominent spiral cords, with those of the base being smaller.

Microsculpture (Fig. 4): the spiral cords are strong but irregularly constructed, with many small holes and lateral prolongations. Between the cords, the surface is formed by small deep axial sulci that are irregularly arranged, sometimes crossing and fusing to each other.

Semicircular aperture with an expanded outer lip and deep anal sinus. Columellar lip enlarged, weakly concave. Outer lip enlarged externally, and being a little undulant by the end of the spiral cords. Peristome with one undulating thread and some parallel lines on its inner surface.

Periostracum fine, translucent and adherent.

Discussion.

We have had some doubts about the generic assignment of *Z. unamae* n. sp. It seemed that this species showed more indications of belonging to the genus *Stosicia*, type species *Rissoa planaxoides* Grateloup, 1838, due to its smooth conical protoconch, strong spiral sculpture and axial microsculpture; the external aspect of *Z. unamae* is even rather similar to *Stosicia annulata* (Dunker, 1859), figured in SLEURS (1996). The most important features separating *Z. unamae* from the genus *Stosicia* are the absence of a broad, deep anterior channel (PONDER, 1985) and the lack of a more or less prominent angulation at the inner end of the anterior channel (mentioned in SLEURS, 1996); instead having a deep posterior channel, which is shallow in *Stosicia*. Furthermore, the shell of *Z. unamae* has very weak, parallel threads on the inner side of the outer lip of the aperture, typical of the genera *Zebina* or *Schwartziella*. But in *Schwartziella* the shell always has axial ribs and spiral microsculpture (very different from the sculpture of the present shell), and species of the genus *Zebina* usually have smooth, often shining shells, only sometimes with spiral sculpture (PONDER, 1985). In this situation more importance was attached to the apertural features, rather than to other characteristics, when the final decision was made to assign the present species to the genus *Zebina*.

In view of the difficulty of that decision, we prefer not to suggest an appropriate subgenus based solely on the shell characters.

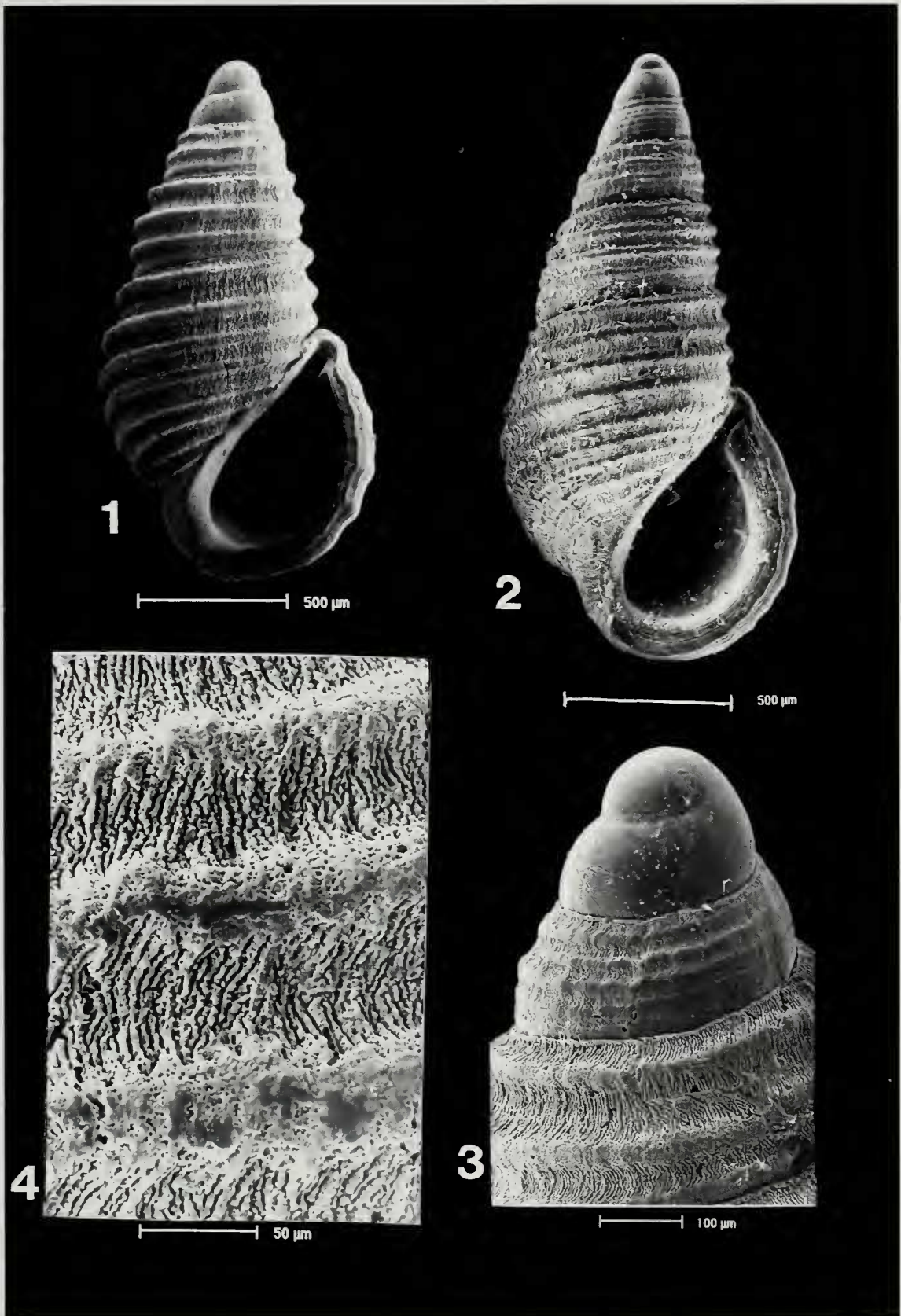
No other species of the Caribbean region has the spiral sculpture and microsculpture of *Z. unamae* n. sp. The only species with some similarity is *Rissoina hummelincki* De Jong & Coomans, 1988, but that species has axial ribs on the first whorls of the teleoconch and the spiral sculpture is formed by smaller, very numerous cords.

ACKNOWLEDGEMENTS. To Jesús Ortea and Felipe Flores Andolais, Director of the UNAM Station of Puerto Morelos who invited us to participate in that meeting. To José Templado, Marta Calvo, Chefy Álvarez, Ángel Valdés and Zoila Graciela Castellanos, who were companions during the collecting in this area. To my mother Margarita Mosquera, who found the shells of this new species after many hours of separating micromolluscs from the sediment samples. To Colin Redfern, of Boca Raton, Florida, for his critical revision of the manuscript and for providing literature. To both referees, Dr. W. Sleurs and Dr. C. Massin, for their critical comments and advice on the present paper. To Jesús Méndez of the CACTI of the Vigo University for the SEM photographs.

REFERENCES

ABBOTT, R. T. 1974. *American seashells* (2nd Ed). Van Nostrand Reinhold Co. New York. 663 pp.

- CLENCH, W. J. & R. D TURNER. 1950. The Western Atlantic marine mollusks described by C. B. Adams. *Occasional Papers on Mollusks* 1(15): 233-403.
- DE JONG, K. M. & H. E. COOMANS. 1988. *Marine gastropods from Curaçao, Aruba and Bonaire*. E. J. Brill. Leiden. 261 pp.
- DESJARDIN, M. 1949. Les Rissoina de l'île de Cuba. *Journal de Conchyliologie* 89: 193-208.
- DIAZ MERLANO, J. M. & M. PUYANA HEGEDUS. 1994. *Moluscos del Caribe colombiano*. Un catálogo ilustrado. Colciencias y Fundación Natura, Bogotá, 290 pp.
- FABER, M. J. 1990. Studies on West Indian marine molluscs, 19. On the identity of *Turbo bryereus* Montagu, 1803, with the description of a new species of Rissoina (Gastropoda: Prosobranchia: Rissoidae). *Basteria* 54 (1-3): 115-120.
- LEAL, J. H. 1991. *Marine Prosobranch Gastropods from oceanic islands off Brazil*. Universal Book Services. Oegstgeest. 419 pp.
- PONDER, W. F. 1985. A review of the genera of the Rissoidae (Mollusca: Mesogastropoda: Rissoacea). *Records of the Australian Museum*, suppl. 4: 1-221.
- RIOS, E. C. 1985. *Seashells of Brazil*. Fundação Cidade do Rio Grande, Universidade y Museo Oceanografico. 288 pp.
- SLEURS, W. J. M. 1989. A zoographical analysis of the Rissoinine fauna of the eastern Pacific with special reference to a comparison with the Caribbean fauna and with a checklist of the Eastern pacific Rissoininae Stimpson, 1865 (Mollusca: Gastropoda). *Annales Société Royale Zoologique Belgique* 119(2): 155-164.
- SLEURS, W. J. M. 1993. A revision on the recent species of *Rissoina* (*Moerchiella*), *R. (Apataxia)*, *R. (Ailinzebina)* and *R. (Pachyrissoina)* (Gastropoda: Rissoidae). *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique (Biologie)* 63: 71-135.
- SLEURS, W. J. M. 1996. A revision of the recent species of the genus *Stosicia* (Gastropoda: Rissoidae). *Mededelingen van de Koninklijke Academie voor Wetenschappen, Letteren en Schone Kunsten van België* 1: 117-158.
- SOUZA LOPES, H., A. DOS SANTOS COELHO & P. de SÁ CARDOSO. 1966. Contribuições ao conhecimento dos gastrópodos marinhos do Brasil. *Boletim do Museu Nacional (Zoologia)*(Rio de Janeiro) 254: 1-11.
- VOKES, H. E. & E. H. VOKES. 1983. Distribution of shallow-water marine mollusca, Yucatán Peninsula, México. Mesoamerican Ecology Institute, Monograph 1. *Middle American Research Institute*, publ. 54. 183 pp.
- WARMKE, G. L. & R. T. ABBOTT. 1961. *Caribbean seashells*. Livingston Publishing Co. Wynnewood, Pennsylvania. 348 pp.



Figs. 1-4. *Zebina unamae* n. sp. Fig. 1. Holotype, MNCN. Fig. 2. Paratype, coll. E. Rolán. Fig. 3. Protoconch of the holotype. Fig. 4. Microsculpture.